

Application No. 10/657,837
Response dated December 18, 2006
Reply to Final Office Action of August 23, 2006

CLAIM LISTING:

1. *(Previously presented)* A prosthesis to replace all or a portion of a natural facet joint on a vertebra, comprising:
 - a fastening element adapted to be removably attached to the vertebra;
 - a structure removably attached to the fastening element; and
 - a prosthetic facet joint articulating surface dimensioned to replace all or a portion of a natural facet joint on the vertebra wherein the prosthetic facet joint articulating surface removably attaches to the structure.
2. *(Previously Presented)* A prosthesis according to claim 1 wherein the structure is fixed to the fastening element.
3. *(Withdrawn)* A prosthesis according to claim 1 wherein the structure is fixed to the fastening element by an adhesive or cement.
4. *(Previously Presented)* A prosthesis according to claim 1 wherein the structure is fixed to the fastening element by mechanical attachment.
5. *(Previously Presented)* A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface is removably carried by the fastening element.
6. *(Previously Presented)* A prosthesis according to claim 1 wherein the structure is removably attached to the fastening element by frictional engagement.
7. *(Withdrawn)* A prosthesis according to claim 1 wherein the structure is removably attached to the fastening element by a Morse taper.
8. *(Previously Presented)* A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface comprises an insert fitted to the structure.

Attorney Docket: 10002-701.406

- 2 of 7 -

Application No. 10/657,837
Response dated December 18, 2006
Reply to Final Office Action of August 23, 2006

9. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface comprises an insert fitted by frictional engagement to the structure.

10. ***(Withdrawn)*** A prosthesis according to claim 1 wherein the artificial facet joint structure comprises an insert fitted by a Morse taper to the fastening element.

11. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface comprises a removable insert fitted to the structure.

12. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the structure pivots with respect to the fastening element.

13. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface is adapted and configured to articulate with a portion of a facet joint of an adjoining vertebra.

14. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface is adapted and configured to replace a caudal portion of a natural facet joint.

15. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface is adapted and configured to replace a caudal portion of a natural facet joint and articulate with a cephalad portion of a facet joint of an adjoining vertebra.

16. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface is made of at least one selected prosthetic material.

17. ***(Previously Presented)*** A prosthesis according to claim 16 wherein the selected prosthetic material includes polyethylene, rubber, tantalum, titanium, chrome cobalt, surgical steel, bony in-growth material, ceramic, artificial bone, or a combination thereof.

18. ***(Previously Presented)*** A prosthesis according to claim 1 wherein the fastening element is fixed to the vertebra by an adhesive or cement.

Attorney Docket: 10002-701.406 - 3 of 7 -

Application No. 10/657,837
Response dated December 18, 2006
Reply to Final Office Action of August 23, 2006

19. **(Original)** A prosthesis according to claim 1 wherein the fastening element includes a bony in-growth material.

20. **(Withdrawn)** A method of replacing, on a vertebral body, all or a portion of a natural facet joint using the prosthesis defined in claim 1 to provide improved support for the spinal column, the method comprising the steps of

- (i) removing all or a portion of a natural articular process from the vertebral body, and
- (ii) fixing the prosthesis as defined in claim 1 to the vertebral body to replace the removed portion of the natural articular process with the artificial facet joint structure.

21. **(Withdrawn)** A method according to claim 20 further including a step of removing at least some of the lamina from the vertebral body.

22. **(Withdrawn)** A method according to claim 20 further including a step of removing at least part of a pedicle from the vertebral body.

23. **(Previously Presented)** A prosthesis according to claim 1 wherein the structure is fixed to the prosthetic facet joint articulating surface.

24. **(Previously presented)** A prosthesis according to claim 1 wherein the fastening element is to the vertebra at or near a pedicle.

25. **(Previously presented)** A prosthesis according to claim 1 wherein the fastening element is to the vertebra at a location away from a pedicle.

26. **(Previously Presented)** A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface is adapted and configured to replace a cephalad portion of a natural facet joint.

Application No. 10/657,837
Response dated December 18, 2006
Reply to Final Office Action of August 23, 2006

27. *(Previously Presented)* A prosthesis according to claim 1 wherein the prosthetic facet joint articulating surface is adapted and configured to replace a cephalad portion of a natural facet joint and articulate with a caudal portion of a facet joint of an adjoining vertebra.

28. *(Previously Presented)* A prosthesis according to claim 1 wherein the fastening element is made of at least one selected prosthetic material.

29. *(Previously presented)* A prosthesis according to claim 28 wherein the selected prosthetic material includes prosthetic materials selected from the group consisting of polyethylene, rubber, tantalum, titanium, chrome cobalt, surgical steel, bony in-growth material, ceramic, artificial bone, or a combination thereof.